Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A method for processing an image taken by a camera of a handheld video phone system for playback on a display of at least one other handheld video phone system connected in a network, each handheld video phone system having an image processor, the method comprising acts of:

providing the image containing at least a portion of a head of a user of the ~~human in a~~ video phone system to the image processor~~, comprising:~~

estimating an orientation of said head in said image using a pattern recognition technique, said pattern recognition technique comprises a classification technique;

~~keeping said image unmodified, without further processing,~~

if the orientation of said head is estimated to not be frontal, ~~otherwise~~

computing a three dimensional model of a face surface of said ~~human~~ user using a computer vision technique based on the result of

the classification technique; and

adjusting an orientation of said three dimensional face surface model to provide a frontal view, wherein the camera and the display of the handheld video phone system are integrated into a single unit.

2. (Currently amended) The method of claim 1, wherein said computing ~~step~~ act further comprises ~~the step~~an act of using a symmetric face assumption to obtain a complete three dimensional face surface model for a profile view.

3. (Currently amended) The method of claim 1, wherein said computing ~~step~~ act further comprises ~~the step~~an act of employing a structure from motion technique to obtain said three dimensional face surface model.

4. (Cancelled)

5. (Currently amended) The method of claim 1, wherein said computing ~~step~~ act generates a morphable three dimensional model.

6. (Currently amended) The method of claim 1, further comprising ~~the step~~an act of mapping said three dimensional face surface model having an adjusted orientation to a two dimensional space.

7. (Currently amended) The method of claim 1, further comprising ~~the step~~an act of transmitting said adjusted image to a remote user.

8. (Currently amended) The method of claim 1, further comprising ~~the step~~an act of presenting said adjusted image to a local user.

9. (Currently amended) An image processor for ~~use in a~~ processing an image taken by a camera of a handheld video phone system~~,~~ for playback on a display of at least one other handheld video phone system connected in a network, the image processor comprising:

a memory for storing an image containing at least a portion of a head of a ~~human~~user of the handheld video phone system; and

a head pose corrector that

~~(i)~~ estimates an orientation of said head in said image using a pattern recognition technique, said pattern recognition technique comprises a classification technique~~;~~

~~(ii) keeps said image unmodified, without further processing,~~

if the orientation of said head is estimated to <u>not</u> be frontal;

~~otherwise the head pose corrector~~

~~(iii)~~ computes a three dimensional model of a face surface of

said ~~human~~ user using a computer vision technique based on the

result of the classification technique; and

~~(iv)~~ adjusts an orientation of said three dimensional

face surface model to provide a frontal view<u>,</u>

<u>wherein the camera and the display of the handheld video phone</u>

<u>system are integrated into a single unit</u>.

10. (Original) The image processor of claim 9, wherein said head

pose corrector is further configured to use a symmetric face

assumption to obtain a complete three dimensional face surface

model for a profile view.

11. (Original) The image processor of claim 9, wherein said head

pose corrector is further configured to employ a structure from

motion technique to obtain said three dimensional face surface

model.

12. (Cancelled)

13. (Original) The image processor of claim 9, wherein said three dimensional face surface model is a morphable three dimensional model.

14. (Original) The image processor of claim 9, wherein said head pose corrector is further configured to map said three dimensional face surface model having an adjusted orientation to a two dimensional modified image.

15. (Original) The image processor of claim 14, wherein said two dimensional modified image is transmitted to a remote user.

16. (Original) The image processor of claim 14, wherein said two dimensional modified image is presented to a local user.

17. (Currently amended) A video phone system, having an image processor for processing an image taken by a camera of a handheld video phone system for playback on a display of at least one other handheld video phone system connected in a network, the system

comprising:

a memory for storing an image containing at least a portion of a head of ~~a human~~the video phone system user; and

a head pose corrector that

~~(i)~~ estimates an orientation of said head in said image using a pattern recognition technique, said pattern recognition technique comprises a classification technique~~;~~

~~(ii) keeps said image unmodified, without further processing,~~ if the orientation of said head is estimated to not be frontal~~;~~ ~~otherwise the head pose corrector~~

~~(iii)~~ computes a three dimensional model of a face surface of said ~~human~~ video phone system user using a computer vision technique based on the result of the classification technique; and

(iv) adjusts an orientation of said three dimensional face surface model to provide a frontal view,

wherein the camera and the display of the handheld video phone system are integrated into a single unit.

18. (Original) The video phone system of claim 17, wherein said head pose corrector is further configured to use a symmetric face assumption to obtain a complete three dimensional face surface

model for a profile view.

19. (Original) The video phone system of claim 17, wherein said head pose corrector is further configured to employ a structure from motion technique to obtain said three dimensional face surface model.

20. (Cancelled)

21. (Original) The video phone system of claim 17, wherein said head pose corrector is further configured to map said three dimensional face surface model having an adjusted orientation to a two dimensional modified image.

22. (Original) The video phone system of claim 21, wherein said two dimensional modified image is transmitted to a remote user.

23. (Original) The video phone system of claim 21, wherein said two dimensional modified image is presented to a local user.